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EDUCATIONAL NOTE

Subsequent Events

August 10, 2023



Subsequent Events

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The actuary should be familiar with relevant educational notes. Educational notes are not binding; rather they are intended to illustrate the application of the standards of practice. A practice that an educational note describes for a situation is not necessarily the only accepted practice for that situation nor is it necessarily accepted practice for a different situation. Responsibility for ensuring that work is in accordance with accepted actuarial practice lies with the actuary. As accepted actuarial practice evolves, an educational note may no longer appropriately illustrate the application of standards.

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Preamble

The Committee on Property and Casualty Insurance Financial Reporting (PCFRC) of the Canadian Institute of Actuaries (CIA) has revised this educational note to take into account changes in CIA *Standards of Practice* (SOP) and International Financial Reporting Standards (IFRS). This educational note applies to members in the property & casualty (P&C) insurance and life & health (L&H) insurance areas.

The purpose of this educational note is to provide guidance in identifying subsequent events and in understanding appropriate courses of action for such events.

Process

The educational note was presented to the Actuarial Guidance Council (AGC) in the months preceding its approval. The PCFRC is satisfied it has sufficiently addressed the material comments received by the AGC and the following committees:

- Committee on the Appointed/Valuation Actuary
- Committee on Life Insurance Financial Reporting
- Committee on Risk Management and Capital Requirements
- Committee on Property and Casualty Insurance Pricing

The creation of this cover letter and educational note has followed the AGC's protocol for the adoption of educational notes. In accordance with the CIA's *Policy on Due Process for the Approval of Guidance Material Other Than Standards of Practice and Research Documents*, this educational note has been prepared by the PCFRC, and has received approval for distribution by the AGC on August 8, 2023.

Your feedback

Questions or comments regarding this educational note may be directed to the [chair of the PCFRC](#).

1. Introduction

The CIA's PCFRC prepared this educational note to provide guidance to property and casualty actuaries in identifying whether events are subsequent events and in understanding appropriate courses of action for such events. Once this educational note was prepared and reviewed, it was felt that it also provides practical guidance to members in the L&H practice area. This educational note focuses on subsequent events that are relevant to the actuary performing an actuarial analysis in support of financial reporting (e.g., insurance contract liabilities valuations supporting year-end and quarterly financial statements). It relies on the CIA's current definitions and CIA SOP related to subsequent events, and is aligned with the definitions of the Chartered Professional Accountants of Canada (CPA Canada) and input from senior audit professionals specializing in insurance organizations.

In this educational note, IFRS 17 terminology prevails, therefore insurance contract liabilities refer to liabilities for incurred claims (LIC/AIC or claims liabilities), liabilities for remaining coverage (LRC/ARC or premium liabilities) and other policy liabilities.

Accounting and actuarial standards are relevant when considering the appropriate treatment of subsequent events in financial reporting for P&C and L&H insurance companies. Key standards that deal with the treatment of subsequent events are [IAS 10 "Events After the Reporting Period"](#) in Part 1 IFRS of the CPA Canada *Handbook – Accounting* and subsection 1430 of the SOP.

This educational note begins with the definition of a subsequent event as contained in the SOP and an examination of the accounting standards related to events after the reporting period, particularly the distinction between adjusting events and non-adjusting events. In considering events, a very important decision point for the actuary is materiality. Consequently, this educational note addresses materiality and refers the reader to the report from the CIA Task Force on [Materiality](#). Next, the event decision tree is presented; this decision tree, taken from subsection 1420 of the SOP, can assist actuaries in determining the appropriate course of action in response to an event.

To demonstrate the use of the event decision tree the educational note presents the following examples:

- catastrophic event, such as Eastern Canada’s January 1998 ice storm
- judicial decision, such as the February 2008 Alberta court decision related to the 2004 automobile reforms
- failure of a reinsurance company from the ceding company’s perspective
- change in investment markets
- knowledge of missing claims
- late reported claim(s)
- change in insurance industry benchmarks
- pandemic events

The final section of this educational note focuses on communication between the actuary, company management, and the auditor at the company level as well as between our organizations at the profession level (i.e., CIA and CPA Canada).

2. Definitions and Standards of Practice

Subsection 1120 of the SOP defines a subsequent event as “an event of which an actuary first becomes aware after a calculation date but before the corresponding report date.” The calculation date is defined as the “effective date of a calculation; e.g., the calculation date in the case of a valuation for financial statements. It usually differs from the report date.”

Normally for a year-end valuation as at December 31, the calculation date would be December 31.

The report date is defined as the “date the actuary specifies as such in the report. It usually differs from the calculation date.” Finally, the term “report” refers to “an actuary’s oral or written communication to users about his or her work.”

Subsection 1430 of the SOP provides guidance regarding the possible effect of subsequent events on the work of actuaries. Paragraph 1430.02 states that

... the actuary should take a subsequent event into account (other than in a pro forma calculation) if the subsequent event

- Provides information about the entity as it was at the calculation date;
- Retroactively makes the entity different at the calculation date; or
- Makes the entity different after the calculation date and a purpose of the work is to report on the entity as it will be as a result of the event.

Since the scope of this educational note is limited to actuarial analyses supporting financial reporting, particularly in the context of annual and quarterly financial statements, the discussion focuses on the first two circumstances in the above list.

The *CPA Canada Handbook – Accounting, Part 1 IFRS, IAS 10 Events After the Reporting Period*, states:

Objective

- 1 The objective of this Standard¹ is to prescribe:
 - (a) when an entity should adjust its financial statements for events after the reporting period; and
 - (b) the disclosures that an entity should give about the date when the financial statements were authorised for issue and about events after the reporting period.

The Standard also requires that an entity should not prepare its financial statements on a going concern basis if events after the reporting period indicate that the going concern assumption is not appropriate.

Scope

- 2 This Standard shall be applied in the accounting for, and disclosure of, events after the reporting period.

Definitions

- 3 The following terms are used in this Standard with the meanings specified:

Events after the reporting period are those events, favourable and unfavourable, that occur between the end of the reporting period and the date when the financial statements are authorised for issue. Two types of events can be identified:

 - (a) those that provide evidence of conditions that existed at the end of the reporting period (*adjusting events after the reporting period*); and
 - (b) those that are indicative of conditions that arose after the reporting period (*non-adjusting events after the reporting period*).
- 4 The process involved in authorising the financial statements for issue will vary depending upon the management structure, statutory requirements and procedures followed in preparing and finalising the financial statements.
- 5 In some cases, an entity is required to submit its financial statements to its shareholders for approval after the financial statements have been issued. In such cases, the financial statements are authorised for issue on the date of issue, not the date when shareholders approve the financial statements . . .
- 6 In some cases, the management of an entity is required to issue its financial statements to a supervisory board (made up solely of non executives) for approval. In such cases, the financial statements are authorised for issue when the management authorises them for issue to the supervisory board . . .
- 7 Events after the reporting period include all events up to the date when the financial statements are authorised for issue, even if those events occur after the public announcement of profit or of other selected financial information.

¹ “Standard” in this section refer to the definition of the *CPA Canada Handbook*.

Note that the “reporting date” in the CPA Standard is equivalent to the “calculation date” in the SOP (and not the “report date”).

Under IFRS, the financial statements now disclose the date the financial statements were authorized for issuance by the entity (typically the date of approval by the Board) and the auditor’s report date will match that date. The actuary’s report date in the financial statements would typically be the same date.

Throughout this educational note, subsequent events are referred to as adjusting events or non-adjusting events according to the descriptions in IAS 10 *Events After the Reporting Period*, paragraphs 03 a) and b), respectively. In general, accounting standards require that an entity adjusts amounts recognized in its financial statements to take into account adjusting (subsequent) events and that the notes to the financial statements include disclosure of non-adjusting (subsequent) events.

The accounting treatment of adjusting events requires that “an entity shall adjust the amounts recognised in its financial statements to reflect adjusting events after the reporting period” (IAS 10, paragraph 8). For non-adjusting events, the accounting treatment states

If non-adjusting events after the reporting period are material, non-disclosure could influence the economic decisions that users make on the basis of the financial statements. Accordingly, an entity shall disclose the following for each material category of non-adjusting event after the reporting period:

(a) the nature of the event; and

(b) an estimate of its financial effect, or a statement that such an estimate cannot be made. (IAS 10, paragraph 21).

The actuarial classification is similar to the accounting classification. Paragraph 1430.05 of the SOP states:

... depending on the classification, the actuary would either

- Take that event into account; or
- Report that event, but not take it into account.

These two options for action are similar to the accounting guidelines for adjusting (subsequent) events (i.e., take the event into account) and non-adjusting (subsequent) events (i.e., disclosure only).

Furthermore, paragraph 1430.03 states that “The actuary should not take the subsequent event into account if it makes the entity different after the calculation date and a purpose of the work is to report on the entity as it was at the calculation date. Nevertheless, the actuary should report that subsequent event.” This is similar to the accounting requirement for non-adjusting (subsequent) events.

An event decision tree is included in subsection 1420 of the SOP to assist the actuary in deciding how to reflect an event in the work, if the actuary determines that the event makes the entity different. In a financial reporting context, the event decision tree can be used to determine whether to take the event into account or to report (i.e., disclose) the event but not to take it into account. When working with the event decision tree, it is critical that the actuary keep in mind the concept of materiality.

3. Materiality

Paragraph 1240.02 of the SOP addresses the concept of materiality, in a general fashion, by stating that “an omission, understatement, or overstatement is material if the actuary expects it materially to affect either the user’s decision making or the user’s reasonable expectations.”

As part of an actuarial valuation of insurance contract liabilities, the actuary would determine a materiality level. The report from the Task Force on [Materiality](#) notes that it is important to recognize what materiality is not. The report emphasizes that the concept of materiality is different from the concepts of:

- the range of reasonable values in an actuarial estimate; and
- the inherent uncertainty associated with actuarial estimates.

Subsection 1520 of the SOP, Joint Policy Statement concerning communications between actuaries involved in the preparation of financial statements and auditors, requires communication regarding the materiality level between the actuary and the auditor. Paragraph 1520.14 states, in part:

The inquiring professional would

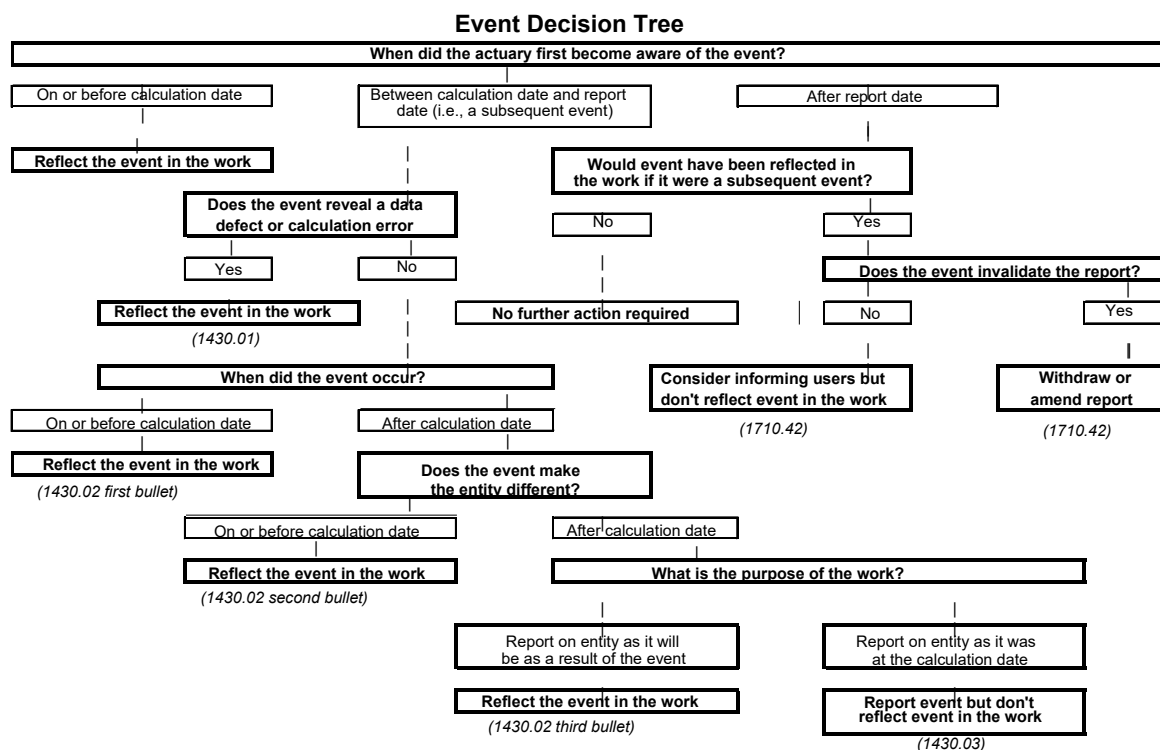
- e) make the responding professional aware of the inquiring professional's needs. This would include a discussion of:
 - ii) the application of materiality to determine whether the responding professional is using a materiality level that is appropriate for the enquiring professional's purposes;

While the actuarial materiality may differ from the materiality level selected by the auditor, the actuary would be aware of the audit materiality level. Generally, the materiality level selected by the actuary for the purpose of actuarial analysis in support of financial reporting would not be greater than the materiality level selected by the auditor.

From an auditor's perspective, an adjusting event that is not material does not have to be reflected and a non-adjusting event that is not material does not require disclosure. If the actuary determines that an event is not material to the actuarial valuation of insurance contract liabilities, the actuary may not need to use the event decision tree. Nevertheless, the actuary would communicate to the auditor the details of such events since the auditor maintains various materiality thresholds. While SOP may not require the actuary to change their analysis, the auditor may nevertheless have to consider the effect of the event.

4. Event decision tree

The next page presents the event decision tree from the SOP for determining the appropriate course of action in respect of a potential subsequent event. Actuaries may use this decision tree in the analysis of subsequent events for insurance contract liabilities. As noted previously, when working with the event decision tree, it is critical that the actuary keep in mind the concept of materiality.



Upon discovery of a potential subsequent event, the first question that the actuary would consider is when they obtained knowledge of the event.

4.1. Knowledge on or before calculation date

According to the SOP, a subsequent event is an event of which an actuary first becomes aware after a calculation date but before the corresponding report date. Thus, if the actuary becomes aware of the event on or before the calculation date, the event is not a subsequent event, and the actuary treats the event similarly to other information used in the valuation process.

4.2. Knowledge between calculation date and report date

Events that occur between the calculation date and the report date are, by definition, subsequent events. If the actuary becomes aware of the subsequent event between the calculation date and the report date, the next question along the event decision tree is whether or not the event reveals a data defect or calculation error.

4.2.1. Data defect or calculation error

Errors can arise in the data provided by the insurer for the analysis or in the actuary's assumptions, calculations and/or methodology. It is important to remember that the actuary's judgment about materiality pervades virtually all work and affects the actuary's decisions at all steps of the decision-making. If it is determined that the event exceeds the actuary's materiality level and is the result of an error, then the actuary would make the appropriate correction (i.e., reflect the event in the work) and communicate the revised insurance contract liabilities estimate to both management of the insurer and the auditor. Correction and communication of a data defect or calculation error is required regardless of whether the error was discovered before or after the report date.

Paragraph 1430.01 of the SOP states, “The actuary should correct any data defect or calculation error that is revealed by a subsequent event.” As part of the Classification portion of subsection 1430, the SOP reiterates that it is the actuary’s responsibility to correct errors. Paragraph 1430.05 states, “The actuary would correct an error revealed by a subsequent event. The actuary would classify each subsequent event other than those which reveal errors . . .”

4.2.2. No data defect or calculation error

If the subsequent event does not reveal a data defect or calculation error, the next question the actuary asks is, “When did the event occur?”

4.2.2.1 On or before the calculation date

The action to this branch of the event decision tree is similar to that described in Section 4.1. The event is not classified as a subsequent event, and the actuary treats the event similarly to other information used in the valuation process.

4.2.2.2 After calculation date

If the event occurred after the calculation date, then the next question is related to the timing of when the entity becomes different. The two options in the event decision tree are: (1) on or before calculation date, and (2) after calculation date.

The response to this question is linked to the auditors’ classification of an event as an adjusting event or a non-adjusting event.

Adjusting (subsequent) events, which the accounting standards define as events that provide evidence of conditions that existed at the end of the reporting period, require the actuary to recalculate the insurance contract liabilities at the calculation date. In the context of the decision tree, these events would therefore be ones that make the entity different on or before calculation date. The actuary would then report the recalculated insurance contract liabilities to management and the auditor for incorporation into the financial statements.

Non-adjusting (subsequent) events, which the accounting standards define as events that are indicative of conditions that arose after the reporting period, require disclosure rather than change to amounts recognised in the financial statements. In the context of the decision tree these events make the entity different after the calculation date and the purpose of the work is to report on the entity as it was at the calculation date. The actuary would nevertheless recalculate the insurance contract liabilities so that management can include appropriate values in the necessary disclosures; however, the insurance contract liabilities reported in the financial statements would remain unchanged.

In conclusion, if the event makes the entity different on or before the calculation date, then the actuary reflects the event in their work. If the event makes the entity different after the calculation date, then in the context of financial reporting, a disclosure in the financial statement would be required.

As mentioned previously in Section 2, the scope of this educational note is limited to actuarial analysis supporting financial reporting and therefore does not address subsequent events which make the entity different after the calculation date and where the purpose of the work is to report on the entity as it will be as a result of the event.

4.3. After report date

If the actuary becomes aware of the event following the report date, the event, by definition, is not a subsequent event. Nevertheless, the event could trigger three possible actions depending on the type of event and the magnitude of the effect of the event. The actuary may: (1) take no action, (2) inform users but not change the work, or (3) withdraw or amend the report.

The first question the actuary asks upon discovering an event after the report date is, “Would the event have been reflected in the work if it were a subsequent event?” If the answer to this question is no, then no further action is required by the actuary. If the answer is yes, the actuary considers whether or not the event invalidates the report. To invalidate the report, the event would either reveal a data defect or a calculation error, provide additional information about the entity that is the subject of the report as that entity was at the calculation date, retroactively make that entity different at the calculation date, or make that entity different after the calculation date and a purpose of the work was to report on the entity as it would be as a result of the information. If the event does not invalidate the report, then the actuary would consider informing the user(s) but does not have an obligation to reflect the event in the work. For purposes of actuarial work that supports financial reporting, the auditor would expect to be informed by the actuary, particularly since the auditor would need independently to evaluate the effect of the event on the audit opinion. If the event does invalidate the actuary’s report, then the actuary would withdraw or amend their report.

5. Disclosure requirements

Company management is ultimately responsible for the notes to the financial statements. However, following a non-adjusting (subsequent) event, the actuary often plays an important role in determining the estimates of insurance contract liabilities that are contained in such notes.

The actuary’s responsibility for disclosure with respect to subsequent events, both adjusting events and non-adjusting events, extends beyond simply the financial statements. Depending on the circumstances of the subsequent event, the actuary has varied means of communication. The actuary may present their findings orally through meetings with company management and/or presentations to the audit committee or the board of directors. The actuary would also include commentary regarding the subsequent event in written communication either in the actuary’s report or separate communication specifically addressing the subsequent event.

The following items could be part of the actuarial disclosure of a subsequent event:

- A description of the nature of the event.
- An estimate of the financial effect, when possible, or a statement that such an estimate cannot be made, including
 - an estimate of the gross amount of claims indemnities and loss adjustment expenses;
 - an estimate of the reinsurance recoveries;
 - an estimate of the reinsurance reinstatement premiums; and
 - a discussion about the impact of the event on
 - future insurance results of the entity;
 - reinsurance risk of non-recovery from reinsurers; and
 - other related events.

Overall, the impact on the statement of profit or loss and statement of financial position would be disclosed by the actuary.

6. Examples

In order to illustrate the concepts described above, the following examples are analyzed using the event decision tree:

- Catastrophic event, such as Eastern Canada's January 1998 ice storm
- Judicial decision, such as the February 2008 Alberta court decision related to the 2004 automobile reforms
- Failure of a reinsurance company from a ceding company's perspective
- Change in investment markets
- Knowledge of missing claims
- Late reported claim(s)
- Change in incurred value of a large loss
- Change in insurance industry benchmarks
- Pandemic event

These examples are for illustrative purposes only. This list is not meant to be exhaustive. It is important to recognize that other types of subsequent events could affect insurance contract liabilities. The course of action following an actual event will depend on each insurer's circumstances and the particular characteristics of the event itself. Unless stated otherwise in each example, the event is considered to be material to the insurer.

6.1. Catastrophic event

The first example refers to the January 1998 ice storm in Eastern Canada. Depending on the geographical distribution of exposures, the financial effects of the ice storm may or may not have been material to a particular insurer. For many insurers with exposures in Eastern Canada, the financial effect of the ice storm was greater than the selected actuarial materiality level for the December 31, 1997, insurance contract liabilities valuation.

When did the actuary first become aware of the event?

The actuary would compare the date they became aware of the event to the calculation date. For this example, the calculation date for most insurers was December 31, 1997. The ice storm did not begin until January 5, 1998; therefore, actuaries did not know of the event before the calculation date (i.e., December 31, 1997). Since the ice storm occurred so early in January, for most actuaries, knowledge of the event developed before the report date. Thus, the actuary proceeds along the middle branch of the event decision tree.

Does the event reveal a data defect or calculation error?

For the ice storm, the answer to this question is no.

When did the event occur?

The ice storm did not begin until January 5, 1998, which was after the calculation date of December 31, 1997.

Does the event make the entity different?

The ice storm clearly does not retroactively make the insurance company different. Accordingly, the ice storm is an event that makes an entity different after the calculation date.

What is the purpose of the work?

If the purpose is to report on the entity as it was, then the actuary would not take the event into account in the selection of methods and assumptions. The actuary should report the event, making no further distinction on the nature and amount of the event, once the materiality hurdle has been passed, and it has been determined that it is not appropriate to amend methods and assumptions.

Both actuarial and accounting guidance are consistent in indicating that the appropriate course of action is to disclose the effect of the ice storm in the notes to the financial statements, but to make no changes to the calculations underlying the 1997 results.

It is clear that the actual LRC or premium liabilities will likely be larger than anticipated as at December 31, 1997. However, this is not the key issue in the context of financial reporting under IFRS. The key issue is the purpose of the work, which is to report on the insurance company as it was on December 31, 1997.

6.2. Judicial decision

This example uses the 2008 judicial decision related to automobile insurance reforms in Alberta. In February 2008, Alberta's Court of Queen's Bench struck down the \$4,000 cap on non-pecuniary damages for people who suffer soft-tissue injuries in car accidents.

For insurers doing business in Canada but without a significant portfolio of Alberta automobile insurance, the court decision was not material, and no action was required. For some insurers with significant exposures in Alberta, the court decision was still not material due to the methods for setting individual case reserves, the proportion of bodily injury claims in their current portfolio of outstanding claims, or because a provision had already been established. Even if there were no changes in actuarial calculations, many auditors required an affirmative statement from the actuary regarding the non-material impact of the Alberta court decision. For many insurers, however, the effect of the court decision was greater than the actuarial materiality level.

In certain circumstances, the question of materiality may lead the actuary to conclude that no action is required according to the SOP, but significant industry-wide events may, in practice, require the actuary to provide a statement for financial reporting purposes regardless of materiality. This statement may require a quantification of the effect on the insurance contract liabilities or a disclosure in the notes to financial statements.

When did the actuary first become aware of the event?

For most insurers, the calculation date in this example was December 31, 2007. Thus, since the court decision occurred on February 8, 2008, the answer to the first question is that actuaries became aware of the event after the calculation date.

Unlike the Eastern Canada ice storm, the court decision occurred in early February, not early January. Some insurers had already held their audit committee meetings. Some actuaries had already prepared their actuarial statements of opinion regarding insurance contract liabilities even though their actuarial report on insurance contract liabilities had not yet been issued.

There was extensive discussion between actuaries and auditors, both at the individual company level and at the industry level, as to what constitutes a report date. Is the report date the date of:

- the audit committee meeting to approve the financial statements;
- the actuarial statement of opinion;
- the actuarial report; or
- the auditor's report on the financial statements (auditor's report date)?

The general consensus of the auditors was that the report date was the date of the auditor's report on the financial statements. According to the SOP, the actuarial report date is defined as the "date the actuary specifies in the report." There may be situations, such as Canadian branches of foreign entities, where the actuary's report date is prior to the auditor's report date. In the unusual circumstance of a significant event occurring after the actuary's report date and before the auditor's report date, the actuary and auditor will be expected to coordinate and decide upon necessary action.

Between calculation date and report date

Actuaries who became aware of the court decision prior to the report date would proceed along the middle branch of the event decision tree. The Alberta court decision was not related to a data defect or calculation error. Since the event occurred after the calculation date, the next question for the actuary who became aware of the court decision prior to the report date would be, "Does the event make the entity different?" While the conclusions were not consistent among all auditing firms and all insurers, most classified the Alberta court decision as an adjusting event, an event that provided further evidence of conditions that existed at the December 31, 2007, financial statement date. For an adjusting (subsequent) event, the actuary would take into account the effect of such an event in the calculation of the insurance contract liabilities at the calculation date. The accounting classification as an adjusting event aligns with the event decision tree branch "the event makes the entity different on or before calculation date."

After report date

For actuaries who became aware of the Alberta court decision after the report date, the event is not classified as a subsequent event (according to subsection 1120 of the SOP). They would answer the question: "Would the event have been reflected in the work if it were a subsequent event?" The answer to this question typically was yes. Thus, the final decision for actuaries was whether or not the event invalidated the report.

For some insurers with significant exposures in Alberta, the court decision did, in fact, invalidate the report. In these situations, actuaries had the option of withdrawing the December 31, 2007, insurance contract liabilities valuation report or amending it. For other insurers without a significant portfolio of Alberta automobile insurance, the court decision was not sufficiently material to invalidate the report. Therefore, many actuaries informed users in the financial notes but did not reflect the event in their work. The decision-making process was based on discussions between the actuary, the company management, and the auditor and depended upon the specific circumstances of each company.

6.3. Failure of a reinsurance company from the ceding company's perspective

The failure of a reinsurer is cited in subsection 1430, Subsequent events, of the SOP as an example of a situation where the classification is not clear. Paragraph 1430.13 states:

If the insolvency was the culmination of a gradual deterioration in the reinsurer's financial circumstances, most of which had occurred before the calculation date but that was not apparent until revealed by the insolvency, the insolvency provides information about the entity as it was at the calculation date. If the insolvency was precipitated by a catastrophe, it provides information about a change in conditions that makes the entity different after the calculation date.

The example in this educational note assumes that the failure of the reinsurer is not due to the occurrence of a catastrophe but instead the gradual deterioration in the entity's financial condition.
When did the actuary first become aware of the event?

This example assumes that the actuary becomes aware of the failure on January 15, which is after the calculation date of December 31 but before the report date. Thus, by definition the failure of the reinsurer is a subsequent event. Given that the actuary becomes aware of the event between the calculation date and the report date, the actuary uses the middle branch of the event decision tree.

Does the event reveal a data defect or calculation error?

The failure of the reinsurer is not considered an error in data, assumptions, calculations and/or methodology.

When did the event occur?

Assume that the failure of the reinsurer occurred during the first week of January, which is after the calculation date of December 31. (Note, if the assumption was that the reinsurer failure occurred during the last week of December, the actuary would not treat the failure as a subsequent event and would incorporate the effect of the failure into their analysis.)

Does the event make the entity different?

This question is likely the most challenging for the actuary to answer. The response to this question determines whether or not the effect of the event is to be reflected in the work (i.e., included in the calculations of insurance contract liabilities) or only reported (i.e., included in disclosure). The response to this question determines whether the event is an adjusting or a non-adjusting (subsequent) event as defined by Canadian accounting standards.

Based on a review of the excerpt from the SOP initially cited in this example as well as the CPA Canada definition of an adjusting event, i.e., an event that provides evidence of conditions that existed at the end of the reporting period, the failure of the reinsurer is classified as an adjusting event and is taken into account in the insurance contract liabilities valuation by the actuary. The actuary would work in concert with the insurance company financial management as well as with the auditor to confirm the response to this final question.

6.4. Change in investment markets

This example assumes a precipitous drop in the stock market that occurs during the first week of January along with a reduction in fixed income yields. Paragraph 1430.13 of the SOP also cites this example as a situation in which the classification is not clear. It states, in part:

For financial reporting, one can argue that the stock market crash provides additional information about the entity as it was at the calculation date, because the crash is an indicator of the outlook for common share investments at that date; alternatively, one can argue that the crash makes the entity different only after the calculation date since it creates a new situation. The new situation would be reflected in the financial statements for the subsequent financial reporting period.

Different actuaries could come to different conclusions. When the situation is unclear, we suggest that the actuary discuss the issue with the auditor for further guidance.

When did the actuary first become aware of the event?

The drop in the stock market and investment yields occurs during the first week of January, which is after the calculation date of December 31. Since the change in the investment environment occurred in the first week of January, the assumption is that the actuary became aware of the event before the report date.

The change in investment markets is considered a subsequent event since the actuary became aware of the event after the calculation date and before the report date. The actuary once again uses the middle branch of the event decision tree to determine whether and how to reflect the event in their work.

Does the event reveal a data defect or calculation error?

The drop in the stock market and investment yields is not an error in data, assumptions, calculations and/or methodology.

When did the event occur?

The drop in the stock market and investment yields occurs during the first week of January, which is after the calculation date of December 31.

Does the event make the entity different?

As noted in the previous example, this last question represents one of the most challenging questions for the actuary. The CPA Canada standards define non-adjusting events as those events that are indicative of conditions that arose after the reporting period. Paragraph 11 of the *CPA Canada Handbook – Accounting, Part 1 IFRS, IAS 10 Events After the Reporting Period*, states:

An example of a non-adjusting event after the reporting period is a decline in fair value of investments between the end of the reporting period and the date when the financial statements are authorised for issue. The decline in fair value does not normally relate to the condition of the investments at the end of the reporting period, but reflects circumstances that have arisen subsequently. Therefore, an entity does not adjust the amounts recognised in its financial statements for the investments. Similarly, the entity does not update the amounts disclosed for the investments as at the end of the reporting period, although it may need to give additional disclosure under paragraph 21.

The appropriate course of action, according to CPA Canada standards, is to disclose the effect of the decline in fair value of the investments but not to take account of the event in the calculation of insurance contract liabilities as at December 31.

6.5. Knowledge of missing claims

This example assumes that the actuary receives notice on August 5 that the June 30 claims database, which the actuary is using to perform a second-quarter insurance contract liabilities valuation, does not include data from a particular group of claims.

When did the actuary first become aware of the event?

August 5 (the date on which the actuary was informed of the missing claims) is after the calculation date of June 30 but before the report date. Thus, this example initially proceeds down the middle branch of the event decision tree.

Does the event reveal a data defect or calculation error?

This event represents an omission (i.e., an error) in the data provided by the insurer. Since the answer to this question is yes, the actuary may have to consider a corrected analysis. As stated in paragraph 1430.01 of the SOP, “The actuary should correct any data defect or calculation error that is revealed by a subsequent event.”

It is important for the actuary to recognize that an error in data, assumptions, calculations and/or methodology that is greater than the materiality level requires correction, even if correcting the error yields an estimate that is still within the range of reasonable values of the auditor.

Lack of clarity in what constitutes the event

In this example, it is unclear whether the event is the late notice of the missing claims, which occurred in August (between June 30 calculation date and report date), or the actual claims themselves which occurred prior to the calculation date of June 30. The conclusion that the data is to be incorporated into the June 30 analysis is reached regardless of whether the actuary proceeds down the first or second branch of the event decision tree. If the event refers to the dates of the missing claims that occurred before the calculation date, then according to the event decision tree, the missing data are not treated as a subsequent event and the claims data are incorporated into the analysis. If the event refers to the actuary's knowledge of the missing claims, the actuary proceeds along the middle branch and responds affirmatively to the question about a data defect or calculation error.

If the omission of data is discovered on August 16, which is usually after the report date, the event is not classified as a subsequent event and the actuary would proceed down the third branch of the event decision tree. The actuary would answer the question: "Would the event have been reflected in the work if it were a subsequent event?" The answer to this question is typically yes. The final decision would be whether or not the event invalidated the report. As stated in paragraphs 1710.40 to 1710.43 of the SOP, the report would be invalidated if the event reveals a data defect or a calculation error. This event represents a data defect and thus the report would be invalidated.

6.6. Late reported claim(s)

Lags in reporting of claims activity often occur for reinsurers. Several weeks, and sometimes months, can elapse between the time the ceding company increases a case reserve and the excess notice is received by the reinsurer. This example assumes that for year-end reserving purposes, the reinsurer's actuary relies on all notices received by December 29 from its ceding companies. Furthermore, it is assumed that the reinsurer receives notice on January 12 of a November 20 increase in case reserve from a three-year old claim that now exceeds the primary retention by more than \$10 million.

When did the actuary first become aware of the event?

The actuary became aware of the event on January 12, which is after the calculation date of December 31 but before the report date. Thus, by definition this is a subsequent event.

Does the event reveal a data defect or calculation error?

It is important to recognize that the late reported claim in this example differs from the missing claims in the previous example. The late reported claim of the reinsurer is not classified as an error. Reinsurers routinely rely on data as of December 31 and receive updated claims information from brokers or ceding companies on new claims or case reserve changes occurring in December in early to mid January. Thus, this example differs from the group of claims that were inadvertently excluded from the claims database in the missing claims example.

When did the event occur?

The increase in case reserve occurred on November 20, which is before the calculation date of December 31. According to the event decision tree, since the event (i.e., the increase in case reserve) occurred before the calculation date, the actuary would reflect the event in the work.

If the increase in case reserve occurred in early January instead, this event would be a subsequent event that would have occurred after the calculation date. According to the event decision tree, the event would then be a non-adjusting subsequent event as it makes the entity different after the calculation date and the actuary would disclose its impact in the report.

6.7. Change in incurred value of a large loss

This example assumes that the actuary receives notice on February 5 that the previously reported losses experienced a large change in value (large loss event). The change in value was recorded in the insurance claims database in mid-January.

When did the actuary first become aware of the event?

February 5 (the date on which the actuary was informed of the change in incurred value) and mid-January (the date on which the incurred value was recorded in the claims database) are both after the calculation date of December 31 but before the report date. Thus, this example proceeds down the middle branch of the event decision tree.

Does the event reveal a data defect or calculation error?

Change in incurred value is not considered an error in data, assumptions, calculations and/or methodology. It is part of the normal course of business of insurer.

When did the event occur?

The change in incurred value occurred after the calculation date of December 31. (Note, if the change in value was in the last week of December, the actuary would reflect the actual value in the contract liabilities valuation.)

Does the event make the entity different?

In this situation, the entity is different after the calculation date. Knowledge of the change in incurred value was only known and recorded after the calculation date of December 31.

The actuary would assess whether the change in incurred value of the large loss even though in excess of its standard of materiality is foreseen as normal in the course of business and whether the loss development component of its incurred but not reported (IBNR) exceeds the change in incurred value. In situations where the IBNR is sufficient, the actuary would deem the event as part of the normal course of business and not disclose the impact in its actuary's report.

In an opposite situation when the IBNR would not be sufficient to absorb the change in incurred value of the large loss, the actuary may consider this event as a non-adjusting subsequent event and disclose the impact of its value in its report. Disclosure would also be communicated to the auditors.

It is also worth noting that the same conclusion would apply whether the change in incurred value of a large loss has a positive or a negative impact on the insurance contract liabilities.

6.8. Change in insurance industry benchmarks

Paragraph 1430.07 of the SOP states, in part:

Examples of subsequent events that provide information about an entity as it was at the calculation date are

- Publication of an experience study that provides information for selection of assumptions;

This example assumes that the actuary is working for a relatively new company that does not yet have a reliable, credible database for development of actuarial assumptions for reserving purposes. Thus, the actuary relies on insurance industry benchmark information for the selection of loss development patterns and expected loss ratios for this company. Furthermore, the example assumes that the industry's statistical agency releases new industry development data on July 15. In this situation, is the actuary required to analyze the new industry data for the purpose of conducting a June 30 reserve valuation, which the company uses for financial reporting purposes?

When did the actuary first become aware of the event?

July 15, the date at which the actuary became aware of the new industry data, is after the June 30 calculation date. Thus, the actuary proceeds down the middle branch of the event decision tree.

Does the event reveal a data defect or calculation error?

The release of new industry benchmarks is not considered a data defect or calculation error.

When did the event occur?

The event is the availability of new industry data. The new data became available July 15, which is after the June 30 calculation date.

Does the event make the entity different?

It is typically not expected that the release of new industry benchmarks would make the entity different. Generally, industry benchmark patterns, particularly loss development patterns, do not change dramatically from release to release. Since actuaries review the experience of multiple years when selecting benchmarks based on industry data, the addition of one year is not usually expected to change the actuary's assumptions drastically. However, if the industry data are used for the selection of trend rates or expected loss ratios, changes in industry experience could be more significant, and the effect on selected assumptions could be material. It is incumbent upon the actuary to verify that the new industry information would not have a material effect on the estimate of insurance contract liabilities for the company.

It is expected that in most circumstances, the actuary would conclude that the effect of the subsequent event is unlikely to be material. Thus, in most circumstances, the actuary would not be required to incorporate the latest industry data in their calculations on that basis.

6.9. Pandemic events

The declaration of a pandemic by the Canadian government and/or the World Health Organization (WHO) is an example in which the classification will depend on the timing and circumstances of the pandemic.

Different actuaries could come to different conclusions. When the situation is unclear, we suggest that the actuary discuss the issue with the auditor for further guidance.

When did the actuary first become aware of the event?

For the COVID-19 pandemic, the WHO declared a pandemic on March 11, 2020. In this particular instance, some actuaries may have been in the position where this is after the calculation date of December 31 but before the report date. The pandemic is considered a subsequent event since the actuary became aware of the event after the calculation date and before the report date. The actuary once again uses the middle branch of the event decision tree to determine whether and how to reflect the event in their work.

Does the event reveal a data defect or calculation error?

The declaration is not an error in data, assumptions, calculations and/or methodology.

When did the event occur?

This is unclear. Before the declaration of a pandemic the COVID-19 virus was present in the population which may or may not have been before the calculation date of December 31. However the majority of the impact of the declaration of the COVID-19 pandemic was a forward-looking concern.

Does the event make the entity different?

As noted in the previous examples, this last question represents one of the most challenging questions for the actuary. Similar to the example in Section 6.4 an entity would disclose the impact of any claims incurred as of the reporting date (if known) as of the calculation date.

It may also be appropriate to provide additional disclosure around the potential impacts of the pandemic, either qualitatively or quantitatively, depending on the information available.

7. Communication between actuaries, company management and auditors

Strong communication between actuaries, company management, and auditors is critical, particularly with respect to subsequent events. Subsection 1520 of the SOP presents the Joint Policy Statement concerning communications between actuaries involved in the preparation of financial statements and auditors. Paragraph 1520.14 states, in part:

The inquiring professional would:

- e) make the responding professional aware of the inquiring professional's needs. This would include a discussion of:
 - iii) subsequent events, to determine that the responding professional understands how they are to be treated and that the responding professional would consider the effect of matters that come to their attention up to the date of their report;

Therefore, the actuary would review the treatment of subsequent events with the auditor as well as with company management and consider the specific circumstances of the insurance company to ensure that the treatment is appropriate for the entity and that the audit and actuarial approaches are consistent.

The report from the CIA Task Force on Materiality states: “An important part of knowing the user in communications between the actuary and the auditor may also be to understand what constitutes a material subsequent event to the accountant user who is also the preparer of general-purpose public financial statements.”

Following a subsequent event that has the potential to affect many organizations in the insurance industry, the CIA and CPA Canada will also play a role in facilitating discussions and decision making as to how to classify the event. Two examples of such events are the Eastern Canada ice storm in January 1998 and the Alberta court decision in February 2008. The discussions at the industry level, however, are not a substitute for discussion at the individual company level.



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